IT Initiative Supplement

April 27, 2010

I. Combined Project Description

Project Title: CHIMES-SNAP & CHIMES- TANF ELIGIBILITY SYSTEMS, ENTERPRISE ARCHITECTURE, AND FISCAL SERVICES

Brief Description of the Project Title:
Combined Healthcare Information and Montana Eligibility System (CHIMES)…

- Temporary Assistance for Needy Families (TANF) Eligibility System Replacement (CHIMES-TANF)
- Supplemental Nutrition Assistance Program (SNAP – Formerly called Food Stamps) Eligibility System Replacement (CHIMES-SNAP)
- Enterprise architecture for these two new systems and the existing Medicaid eligibility system.
- A library of shared fiscal services to support the shared fiscal (accounts receivable and accounts payable) responsibilities associated with the issuance of eligibility and benefits for SNAP and TANF.

Statewide Priority: 1
Agency Priority: 1
Estimated Completion Date: FY2012
IT Project Biennium: FY2010-11,FY2012
Request Number: RFP09-1694P
Version: 1.0

Agency Number: 6901
Agency Name: Department of Public Health & Human Services
Program Number: (SNAP) 691TF0_S; (TANF) 691TT0_S
Program Name: Health and Community Services/Public Assistance CHIMES-SNAP & CHIMES-TANF

A. **Type of Project:** Replacement
B. **Type of System:** Web (includes Mid-Tier, Network, Desktop, & GIS components)

II. Narrative

C. Executive Summary

DPHHS is replacing its current mainframe TANF and SNAP eligibility system with web-based systems and procuring an enterprise architecture solution to serve as the common infrastructure connecting the separate systems. The current legacy system, The Economic Assistance Management System (TEAMS), is built in a monolithic architecture that is difficult and costly to maintain and will not easily facilitate the implementation of enterprise architecture. In the face of ever growing federal changes to the SNAP & TANF programs, increased requirements for safeguarding security and confidentiality and aging technology, TEAMS enhancements are no longer a cost-effective solution to satisfy future business needs.

A Shared Fiscal Services Layer (SFSL) to provide functionality that supports the common fiscal functions shared by the CHIMES-SNAP and CHIMES-TANF systems is included in this development. The Agency Wide Accounting Client System (AWACS) currently provides a common financial application for making payments to the Statewide Accounting, Budgeting, and Human Resources System (SABHRS). The SFSL will serve as a replacement for modernizing this legacy accounting system.

Project Purpose and Objectives:

The main purpose of the new system is to determine eligibility. In addition, the SNAP eligibility system must meet specific program needs, including requirements of the Federal Quality Assurance Standards and the SNAP Employment and Training program. The TANF eligibility system must meet TANF-specific program needs including Federal Reporting and Case Management requirements. The primary objective of CHIMES-SNAP & CHIMES-TANF project is to incorporate all eligibility determination and benefit issuance requirements and introduce advanced business functionality (e.g. a business rules engine) into a web-based environment. This new system employs modern technologies such as J2EE and a business rules engine that will improve the availability and quality of information necessary for the effective delivery of services to participants. It will automate further health care administration to allow Office of Public Assistance (OPA) workers to simplify processes, reduce errors, and spend the majority of their time on qualitative customer care. CHIMES-SNAP & TANF will increase the efficiency of the collection, reporting, and analysis of data at the state program level with a simplified client interaction for ease of use. CHIMES-SNAP & CHIMES-TANF will include the following program functions:

- Data Gathering
- Eligibility Determination
- Benefit Issuance
- Case Management
- Reporting
- Confidentiality and Security
- Conversion
- System Interfaces
- Quality Assurance

Technical Implementation Approach:

CHIMES-SNAP & CHIMES-TANF will be implemented using a modern multi-tier Java-based Service Oriented Architecture. Approximately 200 web pages and several thousand business rules designed and developed for CHIMES-Medicaid will be targeted for reuse in the

development of CHIMES-SNAP & CHIMES-TANF. Unlike TEAMS, CHIMES-SNAP & CHIMES-TANF will include automated eligibility determination that is facilitated by a Business Rules Engine (BRE) using ILOG's JRules product. The relational database will be Oracle 10g.

The technical architecture relies on the following components and technologies:

- An Oracle 10g database to persistently store application data.
- JBoss to serve as the web and application server (also sometime referred to as the "middle tier").
- Java, Second Edition, Enterprise Edition (J2EE) as the development and runtime environment, as well as to provide security-related functions in addition to those provided by the Oracle database and to be custom-developed for the system.
- JavaServer Pages as the technology to produce the dynamic User Interface (web pages) and to communicate between the user and the middle tier.
- Apache Struts, as the technology to provide the framework or underpinning for professional web-based Java development.
- Red Hat Hibernate as the technology to isolate and map the underlying Oracle relational database from the object-oriented Java development environment.
- ILOG JRules as the Business Rules Engine to perform all eligibility determination evaluations.
- XML and Adobe Acrobat as the technologies for correspondence and report generation.

Design, Development, & Implementation Project Schedule and Milestones:

- **Estimated Start Date**: August 2010
- **Estimated End Date:** October 2012

Major project milestones:

Table A Enterprise Architecture (EA) and SFSL Schedule

Milestone Description	Date
Completion & Approval of Detailed Requirements Specifications	11/19/2010
Completion & Approval of Detailed System Design Specifications	12/17/2010
Completion & Approval of Conversion Testing	1/29/2011
State Validation of User Acceptance Test Results and Requirements Traceability Matrix.	2/10/2011
EA/SFSL System Development	3/31/0211
Test/Pilot/Training/Implementation	5/31/2011
Cutover to CHIMES from legacy system for full operations (e.g., implementation/cutover).	7/01/2012

Table B CHIMES-SNAP/ CHIMES-TANF Schedule

Milestone Description	Date
Completion & Approval of Detailed Requirements Specifications	11/19/2010
Completion & Approval of Detailed System Design Specifications	12/17/2010
Completion & Approval of Conversion Testing	1/29/2011
State Validation of User Acceptance Test Results and Requirements Traceability Matrix.	2/10/2011
CHIMES SNAP & TANF Integrated System Development	3/31/2012
Test/Pilot/Training/Implementation	6/1/2012
Cutover to CHIMES from legacy system for full operations (e.g., implementation/cutover).	7/1/2012

D. Business and IT Problems Addressed

In the face of ever growing SNAP & TANF program changes and increased requirements for safeguarding security and confidentiality, it is no longer cost-effective to attempt to meet future business needs with TEAMS enhancements. Nearly two decades old, the technology of TEAMS can no longer sustain continued updates and enhancements from the three participating federal agencies.

E. Alternative(s)

Alternatives Considered:

For a cost benefit analysis, the State of Montana considered two main alternatives for implementing modern web-based SNAP and TANF eligibility systems. The alternatives included the transfer of an existing system from another state and custom development that leverages CHIMES-Medicaid architecture and code.

Rationale for Selection of Particular Alternative:

In considering the cost of the system transfer option, transfer efforts for similar systems resulted in less than 30% re-use of functionality and technology. This in-turn leads to customization costs in excess of $30 million for each system. Illustrating the cost of system transfer, an integrated eligibility system transfer and customization project in Colorado cost an estimated $200 million after numerous cost over-runs and project restarts.

The custom development effort that reuses CHIMES-Medicaid is estimated to be approximately 260,000 hours. Therefore, using today's rates for development and accounting for the potential real scope of enhancement and customization, the estimated cost for a SNAP & TANF version of CHIMES–Medicaid would be $29 million.

F. Narrative Detail

The Supplemental Nutrition Assistance Program (SNAP), formerly known as the Food Stamp Program, provides nutrition benefits to low-income participating clients, supports work, and delivers economic benefits to communities. In Montana, the SNAP eligibility system will determine eligibility, determine benefits levels, and capture participant information for the 35,800

Montana SNAP households. The program is federally funded, and most program rules are mandated in Federal regulation. However, states administer the program and have some flexibility in eligibility rules and service delivery models. All state agencies are required to sufficiently automate their SNAP operations and computerize their systems for obtaining, maintaining, utilizing, and transmitting information concerning SNAP. Also, all state agencies are required to issue the monthly benefit allotment electronically through EBT systems – eliminating paper "stamps" or coupons.

The Temporary Assistance for Needy Families (TANF) program assists low-income adults with dependent children by providing employment and training services, work supports, and monthly cash grants. The TANF program is primarily funded by the Federal government through block grants to states or tribal entities. At the Federal level, the program is administered by HHS' Administration for Children and Families (ACF). Primary purposes defined in Federal law, include:

1. Providing assistance to needy families so that children may be cared for in their own homes or in the homes of relatives.
2. Ending the dependency of needy parents on government benefits by promoting job preparation, work, and marriage.
3. Preventing and reducing the incidence of out-of-wedlock pregnancies and establishing annual numerical goals for preventing and reducing the incidence of these pregnancies.
4. Encouraging the formation and maintenance of two-parent families.

Montana needs both a new SNAP eligibility system and a new TANF eligibility system to meet the changing program and administrative needs of today and the future. Montana's current integrated eligibility system is a typical legacy system; it is inflexible, less accurate than it should be, expensive and difficult to update or change, and does not allow for adequate reporting or case management.

The Department intends to procure the two new systems that will support the overall Department goal of providing accurate and timely assistance to eligible Montanans. In order to accomplish this objective, the systems will need to be more accurate and complete. The new eligibility systems must be easier to change, and changes should be made quickly and at a lower cost. They must have flexible and accurate reporting functionality, to allow for efficient and accurate Federal and State reporting. The systems should improve program management in the areas of quality control, program security, and EBT system benefit issuance. The new eligibility systems must use a variety of mechanisms to interface with Federal, State, and other stakeholder systems. The Department also intends to procure an enterprise architecture solution to allow these two systems, the Medicaid eligibility system, and other systems to efficiently communicate and share data, including a Shared Fiscal Services Layer.

The Department anticipates that the design, development, and implementation of CHIMES-TANF, CHIMES-SNAP, the Enterprise Architecture (EA), and the SFSL will be completed within an approximate budgeted cost of $29,000,000.

The contract period coincides with the State's biennium, and appropriate funding has been requested in the Montana Department budget request for the five-year base contract period. It is the Department's intent to extend the contract term annually dependent upon the biennium budget authorizations, with the option of five additional one-year extensions up through July 2019.

Appropriate funding will be requested through the State's budgetary process for securing the funding for years 2015 through 2019 of this contract.

The following goals and objectives address how the new eligibility system should operate to best support Montana's TANF and SNAP programs. All goals and objectives are applicable to both programs unless otherwise noted.

1. The new eligibility systems must be flexible, modular, reliable, easy to update, and easy to maintain.
    a. The State must be able to easily make changes within the systems, including changes to reports, tables, and rules. The State must be able to maintain eligibility rules, if they choose to do so. This flexibility and updateability is required for the systems to be responsive to changing program business needs.
    b. The systems must be easily maintained over the long-term. End users must be able to perform this long-term maintenance.
    c. The systems must be scaleable and modular.
2. The systems must be user-friendly from the State and client perspectives. More specifically, they must be quick, responsive, easy to learn, easy to search, and incorporate features including training modules, single entry, online help, online applications, links to policy manuals, and client-friendly correspondence.
    a. The new systems must be easy to learn for new and existing State employees. The onscreen text must be written in plain English, so a user can look at a screen and know why he or she is on that screen, and know what to do to successfully use the screen. State employees must not have to remember illogical codes or workarounds to use the eligibility systems. The systems must be intuitive.
    b. The systems must incorporate a search functionality to make it more useable.
    c. The systems must incorporate system training modules and/or a system help function.
    d. The systems must incorporate policy training modules and/or links to the SNAP and TANF policy manuals. This will allow eligibility workers to answer questions quicker and more accurately, improving the workers, applicants, and/or clients' experiences.
    e. The systems must incorporate sound fiscal processes.
    f. The systems must one day have the ability to produce documents in other languages.
    g. The systems must have a common intake function so demographic, income, resource, and other shared information only needs to be entered once.
    h. The systems must be as paperless as possible.
    i. The systems must be accessible to all, including people with disabilities.
    j. The systems should be able to accept online applications and contain an online screening tool.
    k. The systems must include spell check for case notes and notices.
    l. The systems must have flexible and easy to use correspondence, to which changes can easily be made. System-generated correspondence must have basic word processing functionality including word wrap, the ability to have different line spacing, a variety of fonts, and bold and italics.
    m. At a minimum, online availability is required between 6:00 a.m. and 7:00 p.m. seven days a week. The system must be available for longer hours in special

circumstances, including the migrant season. The systems must have a consistent look and feel.

3. The systems must be able to easily exchange data with other systems. The new systems must have efficient interfaces and a high level of interoperability, allowing for future collaboration with other states or Montana programs.
    a. The systems must coordinate with and be compatible with other information systems. Data must be easily exchanged between systems.
    b. Interfaces must be intelligent and real-time. The systems need to be able to interface with other Montana State systems, Federal systems, non-profit partners, and other non-State program partners. The TANF and SNAP systems must also be able to share allowable information with appropriate tribal entities.
    c. The systems must effectively and efficiently interface with all federally required systems.
    d. System users must be able to smoothly transition to other programs from the systems, including Word and Excel.
4. The systems must have the ability to create reliable, comprehensive, flexible, usable, ad-hoc and scheduled reports for case management and program management.
    a. The reporting capabilities must demonstrate accountability to and compliance with State and Federal standards.
    b. The systems must automatically produce managerial reports, including case load reports, and the system must give staff the ability to query data to generate any other reports needed (ad-hoc reports).
    c. The systems must have the ability to create accurate Federal reports.
    d. The TANF system must calculate participation rates using the Federal formula. This formula must be easy to update.
    e. The TANF system must have the ability to implement and accurately measure legislative performance measures.
    f. The systems must be able to produce consistent reporting statistics (longitudinally valid).
    g. The systems must retain accurate records.
    h. The systems must be built to seamlessly coordinate with the shared fiscal services layer.
    i. Reports must be clear, flexible, accurate, and timely.
5. The systems must have robust security and controllable system access.
    a. Data within the systems must be secure and accessible only to those with proper access.
    b. The systems must have varying levels of access. Protected health information needs to be accessible only to people with a certain security level.
    c. The systems must have theft and fraud prevention built in to them.
    d. The systems must contain a history of each user ID and the dated actions taken by specific users.
6. System development processes must be efficiently and effectively coordinated with other systems. TANF, SNAP, and Medicaid eligibility system users must use only one process and one set of screens to perform their work.
    a. The systems must be successfully completed under budget and on time.

b. There must be a positive working partnership between the system users and the developers.

c. The systems must capitalize on the investment and development work completed on CHIMES-Medicaid.

d. The development of the systems must be coordinated with the development of other new systems including Child and Adult Protective Services System (CAPS), System for the Enforcement and Recovery of Child Support (SEARCHS), and CHIMES-Medicaid.

e. The systems must have consolidated financial processes, including overpayment management.

f. The SNAP and TANF systems must be developed to work with the Electronic Benefits Transaction (EBT) system and the shared fiscal services layer.

g. The systems intake process must be coordinated with other eligibility systems (Medicaid, TANF, and SNAP).

7. The systems must have well-defined data fields and rules. The systems must serve the right people with the right services at the right time.
    a. The systems must accurately determine eligibility.
    b. Data must be accurate and reliable in the new systems.
    c. The systems must contain strong controls to limit and correct errors. Certain errors must be able to be corrected without programmer involvement.
    d. The systems must minimize agency-caused errors.
    e. The systems must have flexible eligibility categories for emergencies, such as Hurricane Katrina.
8. The systems must support efficient case management and assessment.
    a. The systems must contain an effective case management and assessment module.
    b. The systems must retain a history of case action, which must be easily searchable.
    c. The systems must help OPA eligibility workers manage their time efficiently.
    d. The SNAP system must include the Employment and Training (E&T) Program.

III. Costs

G. Estimated Cost of Project:

Estimated Cost of Project		FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
1.	Personal Services - IT Staff	432,146	706,440	706,440	353,220			2,198,246
2.	Personal Services - Non IT Staff							0
3.	Contracted Services	740,823	7,920,000	7,920,000	6,168,180	3,451,480	3,451,480	29,651,963
4.	ITSD Services		408,642	408,642	1,032,105	1,032,105	1,032,105	3,913,599
5.	Hardware	2,146				140,429	140,429	283,004
6.	Software	1,124	430,948	430,948	215,474			1,078,494
7.	Telecommunications	5,064	10,674	10,674	5,337			31,749
8.	Maintenance					22,300	22,300	44,600
9.	Project Management							0
10.	IV & V		614,400	614,400	307,200			1,536,000

11.	Contingency							0
12.	Training	1,049	13,152	13,152	6,576			33,929
13.	Other	92,562	552,152	552,152	276,076	269,446	269,446	2,011,834
Total Estimated Costs		1,274,914	10,656,408	10,656,408	8,364,168	4,915,760	4,915,760	40,783,418

Total Funding:

IV. Funding

H. Funding

Total Funding

Fund		FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
1.	03598	657,890	5,504,035	5,504,035	4,320,093	2,538,990	2,538,990	21,064,032
2.	05135	617,024	5,152,373	5,152,373	4,044,075	2,376,770	2,376,770	19,719,386
3.								0
4.								0
5.								0
6.								0
Total Estimated Costs		1,274,914	10,656,408	10,656,408	8,364,168	4,915,760	4,915,760	40,783,418

Cash/Bonded:

Bill Number:

V. Cost upon Completion

1. **Operating Costs upon Completion**
   This is an ongoing effort and does not have a completion date.

FTE:

Personal Services Costs:

Operating Costs:

Maintenance Expenses:

Total Estimated Costs:

2. Funding Recap

This is an ongoing effort and does not have a completion date.

Fund Type:

Amount:

Total Funding:

V. Risk Assessment

A. Current IT Infrastructure Risks

1. Current application 10+ years old? Yes

Date of last major upgrade?

TEAMS undergoes continual enhancements to support changing business need and federal program requirements. Among these most recent major upgrades is Statewide Customer Service support (2004), NDNH File Matching (2006), BENDEX Interface Rebuild (2007), Implementation of NPI (2007), and A/R Interface Upgrade (2008). As the TEAMS replacement systems develop, critical evaluation of major enhancement requests will play an increasing role in making decisions concerning whether TEAMS should enhance or defer new functionality to new systems.

2. Current application is based on old technology? Yes

If yes, what is the current hardware platform, operating system, and programming languages used to support the application?

TEAMS is an IDMS mainframe based application running on IBM hardware with COBOL programming language.

3. Is the agency not capable of maintaining the current application with internal technical staff? Yes

If yes, who supports the application today?

TEAMS is supported in Maintenance and Enhancement by Northrop Grumman under the ITFM Contract and TSD/PMB oversight

4. Other IT infrastructure risks? Yes

If yes, provide further detail.

TEAMS IDMS Mainframe based processing using COBOL programming language is probably the biggest risk associated with TEAMS.

- While still quite powerful, mainframe data processing, management, access and maintenance costs are increasingly prohibitive when compared with the newer web-based technologies.
- COBOL is an obsolete programming language that takes time to modify, write and debug, translating to increase M&E expense and decreased service
- The database reporting capability of COBOL based systems is not as flexible as that of newer technologies. This impedes the Department's ability to obtain comprehensive data in an environment of ever increasing data needs.
- While the IT industry continues to expand toward Oracle based applications, the pool of programmers skilled in COBOL continues to decrease, which presents risk to both maintenance and enhancement.

B. Current Business Risks

1. What are the risks to the state if the project is not adopted?

a. Lack of available staff with skills in legacy technology
b. Increased cost for enhancement, maintenance, and support
c. Decreasing ability to implement federal and state mandates

2. Does the current application meet current business requirements? No
If "no" what specific business functions does the application lack?

The current TEAMS application lacks the use of business rules engine and advanced interoperability with other applications and data systems. New federal requirements include the use of business rules engine, increased data collection and reporting, as well as enhanced interoperability with other applications and data systems. New web-based technologies operating with enhanced programming languages offer the flexibility to meet current business requirements. Also, the original concept of TEAMS as an enterprise unto itself is being revised to meet the reality that TEAMS is a part of a greater enterprise, which allows optimization of interfaces, data sharing capability and processes to ensure a more seamless delivery of service. While TEAMS architecture supported acceptable standards of security and access when implemented, increased emphasis upon the need for tighter control of security roles will render system architecture obsolete. Requirements for TEAMS replacement systems will restrict access on a screen-by-screen or even field-by-field basis.

It is for these reasons that the TEAMS system is being replaced with the CHIMES eligibility model. Although some enhancement has been done in this area, TEAMS continues to present risk with regard to its ability to meet business requirements concerning the assignment of Worker, County Jurisdiction, and Caseloads. Experience gained in addressing these concerns is currently being diligently applied in new system requirement definition for the applications that will replace TEAMS.

C. Project Risk Assessment

1. Describe any major obstacles to successful implementation and discuss how those obstacles will be mitigated.

Table H Risk Assessment

Description	Severity (H/M/L)	Probability of Occurrence (%)	Estimated Cost	Mitigation Strategy
Large custom development project	H	100%	15% of total	Reuse of existing design and development from CHIMES-Medicaid
Multiple large projects for the agency and resulting staff availability	H	100%	10% of total	Coordinate between TSD, DPHHS Director's Office, ITSD, and Governor's Office.
Project management	M	50%	10% of total	Secure skilled and experienced project management team (internal and external).
Cost management	M	20%	5% of total	Execute firm fixed price agreement with selected vendor.